Reviewer’s report

Title: Changing insurance company claims handling processes improves some outcomes for people injured in road traffic crashes

Version: 3 Date: 29 July 2011

Reviewer: Jette Möller

Reviewer’s report:

I find this manuscript to be very well-written, using a number of established scales for measuring different injury and health aspects. The methods are well described, however I have some questions regarding the study design and some of the conclusions drawn based on this that need attention before a decision on publication can be reached.

Regarding the study design:

1. Why was the participants not randomized to the different teams? How might this non-randomized allocation to teams have affected the results? On basis of what were they assigned to teams? I agree that there seems to be little difference between the participants in the different teams with regard to one month post-injury information, but how about pre-injury factors, other than the socio-demographic ones analyzed, for example prior accident history, prior history of health problems?

2. I guess it was for administrative reasons that the identification of participants was done at one month post-injury, but why was the 7 month post-injury chosen for follow-up? If the research question is that return to work occurs earlier in the intervention groups a design where date of return to work was collected and analyses using Cox regression would be more suitable. Did you consider this?

3. Were the loss to follow-up participants more seriously injured, worse health status, less motivated for participation due to less illness, etc? What reasons did they state for dropping out?

4. I am lacking a section describing how the outcomes, return to work and daily activities, were defined and measured? How were the questions formulated?

Regarding discussion and conclusions:

5. Based on the population generating the participants, the inclusion criteria, the participation rate at follow-up, what are the generalization that can be drawn from this study and what are the limitations? For example, the majority of participants being female (in table 1, I was surprised to see that the majority are female gender. In Sweden official statistics shows that males are more often injured and killed in motor vehicle accidents. Can the majority of the participants being female have influenced the results? This comment is also related to the question
regarding the drop-outs and those declining participation, were they more often males?). I think the discussion would benefit from an expansion regarding this.

6. In the discussion you mention that a weakness of this study is the lack of information on the actual implementation of the alternative approaches to claims management. I agree, and I think this is a major weakness. What actions were taken to standardize the claims management in the different groups? Protocols? Education? Was it possible to separate the claim managers based on team, or was there a risk of the standard team adopting the intervention group management methods?

7. In the discussion you write “In this study the majority of participants (95%) had returned to work at 7 months but still reported health problems such as depression (19%) and anxiety (31%). This shows the major impact a motor vehicle accident can have on a person’s life even when the person has returned to his work…” Based on this study where no pre-injury data on depression and anxiety was available, I do not think such a conclusion can be drawn.

8. In the discussion you write “Based on the recommendations to NRMA Insurance from the participants, and the increased use of medical health services by participants in Team 2 and 3 (data not shown), we do believe there was a different approach and more contact with NRMA Insurance in the two intervention teams resulting in more satisfaction and more use of medical health services in the finalised claims.” Do you think that the effect of the intervention goes through a more frequent or better health care treatment? Based on this, why was the variable “medical health usage” not included in the models? Is it possible that there might be some pre-injury factor that are more predictive of the outcomes, or interacting with type of team, that are unmeasured in this study?

Regarding the presentation of results:

9. I would prefer if there also were a table showing the odds ratios presented in the text.

10. Figure 1: Could be improved by inserting a separate box for those meeting inclusion criteria and then then the box for those willing to participate. Additionally I think the figure would improve if the boxes for excluded, drop-outs etc would be stratified on teams.

11. Table 4: Why is there p-values not calculated for all the rows in table 4?

Minor Essential Revisions:

12. On page 5, in the section about HADS, you are presenting Cronbach alpha values. It is not clear to me where these come from, this study or another (if later give reference).

13. On page 6 in the section of statistical analyses you write about backward multiple linear regression, whereas in the section of results you write about backward conditional logistic regression. Please make sure the texts are
congruent.

14. Table 4: In the column of team 1 there is an * that is not explained.

**Level of interest:** An article whose findings are important to those with closely related research interests

**Quality of written English:** Acceptable

**Statistical review:** Yes, and I have assessed the statistics in my report.

**Declaration of competing interests:**

I declare that I have not competing interests.